



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/638,099	08/07/2003	Robert R. Gallucci	RD27416-2	3376

23413 7590 06/27/2006

CANTOR COLBURN, LLP
55 GRIFFIN ROAD SOUTH
BLOOMFIELD, CT 06002

EXAMINER

TRAN, THAO T

ART UNIT	PAPER NUMBER
----------	--------------

1711

DATE MAILED: 06/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/638,099

Applicant(s)

GALLUCCI ET AL.

Examiner

Thao T. Tran

Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 May 2006.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-5,7,8 and 10-23 is/are pending in the application.
4a) Of the above claim(s) 3,12-14,20 and 23 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1,4,5,7,8,10,11,15-19,21 and 22 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5/11/06.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/11/2006 has been entered.

2. The IDS filed on 5/11/2006 has also been received and considered.

3. Claims 1, 3-5, 7-8, 10-23 are currently pending in this application. There has been no change in the claims in this Reply.

4. Claims 3, 12-14, 20, and 23 have been withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, as indicated in the Paper filed 10/22/2004.

5. Claims 1, 4-5, 7-8, 10-11, 15-19, and 21-22 are currently examined.

6. In view of the Office action of 4/04/2006, the rejection of the claims 1, 4-5, 7-8, 10-11, 15-19, and 21-22, under 35 U.S.C. 112, first paragraph, has been withdrawn due to further consideration. However, the ODP and prior art rejections are maintained as follows.

Double Patenting

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is

Art Unit: 1711

appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. Claims 1, 4-5, 7-8, 10-11, 15-18 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-38 of U.S. Patent No. 6,420,032.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the scope of the claims of the patent overlaps that of the instant claims, rendering them obvious over each other.

The claims of the patent disclose all of the limitations as recited in the instant claims. However, independent claims 1, 17, and 35 of the patent disclose the transparent metal oxide layer; whereas instant claims 1, 19, and 21 disclose a haze-prevention layer. Thus, the scope of the claims of the patent overlaps that of the instant claims, rendering them obvious over each other.

Note that the abrasion resistant layer or scratch resistant layer in claims 25-28, 36 of the patent is considered as the protective layer in the instant claims.

Claim Rejections - 35 USC § 102

9. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

10. Claims 1, 7-8, 10-11, 16-17, 19, 21-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Iacovangelo (US Pat. 6,420,032).

The applied reference has a common Assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C.

102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

Iacovangelo discloses a laminate, comprising a polymeric substrate 1, an interlayer 5 (haze-prevention layer), a reflective metal layer 2, a metal oxide UV absorbing layer 3, and an abrasion resistant layer 4 (protective layer) (see Fig. 3A-D; col. 6, ln. 13-44). The polymeric substrate comprises a thermoplastic resin, such as polyetherimide or polyethersulfones (see col. 2, ln. 35-37; col. 4, ln. 29-36). The interlayer and the abrasion resistant layer comprise a plasma-polymerized organosilicon as recited in the instant claims (see col. 6, ln. 19-37). The reflective metal layer comprises aluminum or silver (see col. 5, ln. 36-42). Iacovangelo further discloses an interlayer 6 of aluminum, between layers 3 and 4 (see Fig. 3C; col. 6, ln. 59-66), which also meets the requirement of the reflective metal layer in the claims.

With respect to the properties, such as heat distortion, volume resistivity, and tensile modulus, since the reference teaches the same article with the same chemical components, the

Art Unit: 1711

article of the reference would inherently have the same properties as the presently claimed invention.

11. Claims 1, 7-8, 10-11, 16-17, 19, 21-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Iacovangelo (US Pat. 6,261,694).

Iacovangelo discloses a laminate, comprising a polymeric substrate 1, an interlayer 6 (haze-prevention layer), a UV absorbing layer 2, an IR reflection layer 3, an interlayer 7, and an abrasion resistant layer 5 (protective layer) (see Fig. 3D-E). An adhesion-promoting layer 8 is added directly below the UV absorbing layer 2 (see col. 7, ln. 50-51). Thus, the adhesion-promoting layer 8 is between interlayer 6 and layer 2.

Iacovangelo further discloses the substrate comprising polycarbonate, polysulfone, or polyetherimide (see col. 5, ln. 7-13, 41-49). The adhesion promoting layer 8 and the IR reflection layer 3 comprise silver or aluminum (see col. 6, ln. 1-8). The interlayers 6, 7, and the abrasion resistant layer comprise a plasma polymerized organosilicon as recited in the instant claims or silicon oxide (see paragraph crossing col. 6 and col. 7; col. 7, ln. 11-52). The thickness of layer 3 is about 20-25 nm (see Table 1). Note that interlayer 7 comprises aluminum and is indirect contact with the abrasion resistant layer 5 (see Fig. 3C-D; col. 7, ln. 36), which reads on the presently claimed metal layer.

With respect to the properties, such as heat distortion, volume resistivity, and tensile modulus, since the reference teaches the same article with the same chemical components, the article of the reference would inherently have the same properties as the presently claimed invention.

Claim Rejections - 35 USC § 103

12. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

13. Claims 4-5, 15, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iacovangelo '694 as applied to claim 1 above.

Iacovangelo '694 is as set forth in claim 1 above and incorporated herein.

Iacovangelo does not specifically teach the substrate to be substantially free of inorganic filler, the thickness of the substrate, or the thickness of the interlayers. However, the reference further discloses the substrate to be flexible or rigid, and transparent or not transparent (see col. 5, ln. 57-58), and the thickness of each layer is not necessarily to scale (see col. 6, ln. 4-5).

Therefore, it would have been obvious to one of ordinary skill in the art, that the substrate of Iacovangelo would have been made substantially free of inorganic and the thickness of each layer would have been adjusted, in order to obtain the properties desired of the product.

Iacovangelo does not teach the use of the laminate as an automotive headlight reflector. However, the reference discloses the laminate to be employed in a range of automotive glass applications (see col. 6, ln. 26-27).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to have employed the laminate of Iacovangelo as an automotive headlight reflector as well. By teaching the laminate comprising IR reflector layers and the use of the laminate in a range of automotive glass applications, Iacovangelo's invention would also include the use of the laminate as a headlight reflector.

Response to Arguments

14. Applicant's arguments filed on 05/11/2006 have been fully considered but they are not persuasive.

The 112, 1st paragraph, rejection of the claims has been withdrawn due to further consideration. Applicant is correct in that the instant application, in paragraph [0086], does disclose, "All cited patents, patent applications, and other references are incorporated herein by reference in their entirety", thus overcoming the 112 rejection.

In response to Applicants argument that there is no compositional overlap between the transparent metal oxide layer of the claims of Iacovangelo '032 and the instantly claimed haze-prevention layer, it is noted that the obviousness-type double patenting is based on the overlapping scopes comprising other layers in common between the two inventions, and not compositional overlap between the metal oxide layer and the haze-prevention layer. Thus, the obviousness double patenting rejection of the claims is sustained.

Applicants further argue that Iacovangelo '032 does not teach the presently claimed protective layer. According to Applicants, Iacovangelo does not teach a layer having the chemical compounds as recited in instant claim 1 that is on top of and in direct contact with the reflective metal layer. However, as pointed out before, in Figure 3C, for example, Iacovangelo discloses the abrasion resistant layer 4 is formed over the interlayer 6; wherein the abrasion resistant layer 4 is made of an organosilicon compound and the interlayer 6 of aluminum (see col. 6, ln. 19-21, 59-66). Hence, layer 4 and interlayer 6 of the '032 reference meet the requirements of the presently claimed protective layer and metal layer respectively.

Art Unit: 1711

In response to Applicants' arguments that Iacovangelo '694 does not teach a plasma polymerized organosilicon layer on top of and in direct contact with a metal layer, it is noted that in Figs. 3C-D, Iacovangelo '694 discloses the plasma polymerized organosilicon layer 5 in direct contact with an aluminum-containing interlayer 7 (see col. 7, ln. 30-36). Thus, layer 5 and interlayer 7 of the '694 reference meet the requirements of the presently claimed protective layer and metal layer respectively.

In response to Applicants' arguments that there is no motivation to rearrange the Iacovangelo '694 layers in order to meet the requirements of the presently claimed protective layer and the metal layer, the arguments are as presented above.

Contact Information

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thao T. Tran whose telephone number is 571-272-1080. The examiner can normally be reached on Monday-Friday, from 9:00 a.m. - 5:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1711

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

tt
June 20, 2006


THAO T. TRAN
PATENT EXAMINER